

CLAIMS

1. Switching device comprising at least one cell (C1, C2, C3, C4) made up of a moving structure (14, 16) capable of moving between two end positions (A, B) and actuating electrodes (20) for subjecting this structure to forces of attraction to control its movement, characterised in that said electrodes are located on each side of the moving structure in such a way as to follow its exact shape when it is in one of its two end positions.
2. Switching device according to Claim 1, characterised in that said moving structure comprises a flexible cantilever beam (14) and an integral screen (16) attached to said beam.
3. Switching device according to Claim 2, characterised in that said electrodes (20) are located only on each side of the flexible beam.
4. Switching device according to Claims 2 or 3, characterised in that it also comprises, associated with each electrode (20), at least one stopper (18) serving as a stop for the beam and for the purpose of preventing it coming into contact with said beam.
5. Switching device according to Claim 4, characterised in said stopper (18) is located at the free end of the cantilever beam (14), beyond the screen (16).
6. Switching device according to Claims 4 or 5, characterised in that it comprises a plurality of stoppers (24) distributed along the length of said electrodes.
7. Switching device according to one of the claims 1 to 6, characterised in that the side walls of the moving structure, stoppers and electrodes are coated with a diamond layer.
8. Switching device according claim 7, characterised in that said diamond layer is conductive.

- Sub A3* →
9. Switching device according to one of the claims 1 to 8, characterised in that it is made on a substrate (10).
10. Switching device according to claim 9, characterised in that said substrate is made of transparent material.
- 5 11. Switching device according to Claim 9, characterised in that the substrate has a transverse aperture (26) positioned in such a way as to be closed by the screen (16) when the system is in one of its end positions.
12. Switching device according to Claim 11, characterised in that said aperture (26), on the opposite side to the screen, has a portion (26b) of a greater diameter than the portion located on the side of the screen.
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13. Switching device according to Claim 12, characterised in that said portion of greater diameter is conical.
- Sub A4* →
14. Switching device according to Claims 2 to 13, characterised in that said beam (14) presents a 'T' shaped section.
- 15 15. Switching device according to Claims 1 to 14, in which each electrode (20) is connected to a conductor linked to a control circuit, characterised in that the electrode connection with the above-mentioned conductor comprises a fuse (42).